

**To:** Fitz-James, Schatzi[Fitz-James.Schatzi@epa.gov]; Stalcup, Dana[Stalcup.Dana@epa.gov]; Dreyfus, Melissa G.[Dreyfus.Melissa@epa.gov]  
**Cc:** Zaragoza, Larry[Zaragoza.Larry@epa.gov]; Wells, Suzanne[Wells.Suzanne@epa.gov]; Rigger, Don[Rigger.Don@epa.gov]; Gartner, Lois[Gartner.Lois@epa.gov]  
**From:** Mahmud, Shahid  
**Sent:** Wed 9/30/2015 9:02:33 PM  
**Subject:** RE: URGENT - AP Inquiry on wastewater treatment plants

Looks good with the Schatzi's suggestions.

**From:** Fitz-James, Schatzi  
**Sent:** Wednesday, September 30, 2015 4:59 PM  
**To:** Stalcup, Dana; Dreyfus, Melissa G.  
**Cc:** Mahmud, Shahid; Zaragoza, Larry; Wells, Suzanne; Rigger, Don; Gartner, Lois  
**Subject:** RE: URGENT - AP Inquiry on wastewater treatment plants

See suggested edits to address Dana's comment.

**From:** Stalcup, Dana  
**Sent:** Wednesday, September 30, 2015 4:54 PM  
**To:** Dreyfus, Melissa G.  
**Cc:** Mahmud, Shahid; Zaragoza, Larry; Fitz-James, Schatzi; Wells, Suzanne; Rigger, Don  
**Subject:** Re: URGENT - AP Inquiry on wastewater treatment plants

Looks good - except the "as you will note" sentence needs to be reworded a little - read it and you will see what I mean - thanks

Sent from my iPhone

On Sep 30, 2015, at 4:23 PM, Dreyfus, Melissa G. <[Dreyfus.Melissa@epa.gov](mailto:Dreyfus.Melissa@epa.gov)> wrote:

Thanks, everyone. I've come up with a combination of everyone's edits. Dana and Don?

**3) Are there other places near or at big mines/mining districts where the EPA has considered building a mine wastewater treatment plant but has tabled that discussion, planning because of costs, local opposition or other reasons?**

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) Part 40 CFR300.430(e)(9) lays out a nine criteria evaluation for selecting a site-specific remedy. The nine evaluation criteria include evaluating site remedies to determine 1) Overall protection of human health and the environment; 2) Compliance with ARARs (applicable or relevant and appropriate standards); 3) Long-term effectiveness and permanence; 4) Reduction of toxicity, mobility or volume; 5) Short-term effectiveness; 6) Implementability; 7) Cost; 8) State acceptance and 9) Community acceptance. ~~As you will note that~~ Costs and community acceptance are just two of the nine evaluation criteria ~~used by EPA~~ used for selecting the appropriate remedy at an NPL site. Thus, selection of remedies is a site-specific decision based on many factors, and EPA has not tracked at a national level mine wastewater treatment remedies that were tabled because of costs, local opposition, or other reasons.

**4) Are there mine wastewater treatment plants that the EPA is involved with that are currently out for bid or are under construction?**

Decisions regarding clean up actions are site-specific, thus EPA does not track this type of on-going work at a national level. Further, EPA is generally not involved in contracting decisions at Potentially Responsible Party (PRP)- or federal facility-lead sites.

**Melissa Greer Dreyfus**

**Environmental Health Scientist**

**Community Involvement and Program Initiatives Branch**

**Office of Superfund Remediation and Technology Innovation**

**U.S. Environmental Protection Agency**

**Phone: 703-603-8792**

**email: [dreyfus.melissa@epa.gov](mailto:dreyfus.melissa@epa.gov)**

**From:** Mahmud, Shahid  
**Sent:** Wednesday, September 30, 2015 4:10 PM  
**To:** Zaragoza, Larry; Dreyfus, Melissa G.; Stalcup, Dana; Fitz-James, Schatzi; Wells, Suzanne  
**Subject:** RE: URGENT - AP Inquiry on wastewater treatment plants

Thanks Melissa!

I have attached my redline below.

**From:** Zaragoza, Larry  
**Sent:** Wednesday, September 30, 2015 3:46 PM  
**To:** Dreyfus, Melissa G.; Stalcup, Dana; Fitz-James, Schatzi; Wells, Suzanne; Mahmud, Shahid  
**Subject:** RE: URGENT - AP Inquiry on wastewater treatment plants

Hi Melissa,

I have some suggestions for your consideration. See attached markup

Thanks

Larry

**From:** Dreyfus, Melissa G.  
**Sent:** Wednesday, September 30, 2015 3:33 PM  
**To:** Stalcup, Dana; Fitz-James, Schatzi; Wells, Suzanne; Mahmud, Shahid; Zaragoza, Larry  
**Subject:** RE: URGENT - AP Inquiry on wastewater treatment plants

Draft follow-up answers for consideration. They could probably use some fine-tuning. We can send these over to OSWER once we refine and see if Randy would like to offer them up to OPA.

**3) Are there other places near or at big mines/mining districts where the EPA has considered building a mine wastewater treatment plant but has tabled that discussion, planning because of costs, local opposition or other reasons?**

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) Part 40 CFR300.430(e)(9) lays out a nine criteria evaluation for selecting a site-specific remedy. The nine evaluation criteria include evaluating site remedies to determine 1) Overall protection of human health and the environment; 2) Compliance with ARARs (applicable or relevant and appropriate standards); 3) Long-term effectiveness and permanence; 4) Reduction of toxicity, mobility or volume; 5) Short-term effectiveness; 6) Implementability; 7) Cost; 8) State acceptance and 9) Community acceptance. As you will note that Costs and community acceptance are just two of the nine evaluation criteria used by EPA for selecting the appropriate remedy at an NPL site. As these are site-specific decisions, we do not track the type of information requested on a national level.

Section 121 of the Superfund statute (the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)) established five principal requirements for the selection of remedies. Remedies must: 1) protect human health and the environment; 2) comply with applicable or relevant and appropriate requirements (ARARs) unless a waiver is justified; 3) be cost-effective; 4) utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable; and 5) satisfy a preference for treatment as a principal element, or provide an explanation in the Record of Decision (ROD) as to why this preference was not met. Therefore, selection of remedies, such as a wastewater treatment plant, is a site-specific decision based on many factors and is not tracked at a national level.

**4) Are there mine wastewater treatment plants that the EPA is involved with that are currently out for bid or are under construction?**

Decisions regarding clean up actions are site-specific, thus EPA does not track this type of on-going work at a national level. Further, EPA ~~would~~ is generally not be involved in contracting decisions at Potentially Responsible Party (PRP)- or federal facility-lead sites.

**Melissa Greer Dreyfus**

**Environmental Health Scientist**

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**email: [dreyfus.melissa@epa.gov](mailto:dreyfus.melissa@epa.gov)**

**From:** Stalcup, Dana

**Sent:** Wednesday, September 30, 2015 7:41 AM

**To:** Fitz-James, Schatzi; Wells, Suzanne; Dreyfus, Melissa G.; Mahmud, Shahid; Zaragoza, Larry

**Subject:** FW: URGENT - AP Inquiry on wastewater treatment plants

We should discuss whether we should do additional follow up on this. Thanks - Dana

Dana Stalcup

Director, Assessment and Remediation Division

OSWER/Office of Superfund Remediation and Technology Innovation (OSRTI)

Desk – 703-603-8702

Cell – 202-309-5473

**From:** Deitz, Randy  
**Sent:** Tuesday, September 29, 2015 6:36 PM  
**To:** StClair, Christie; Stalcup, Dana; Mahmud, Shahid  
**Cc:** Allen, Laura; Harrison, Melissa; Cohen, Nancy  
**Subject:** RE: URGENT - AP Inquiry on wastewater treatment plants

Christie, below are the prior responses we sent to the AP. Regarding Q.s 3 and 4 where we indicated we needed more time to check, after

reaching out to our regions, we have not identified instances where we considered building a mine wastewater treatment plant but that plans

were tabled because of costs or local opposition. And for Q. 4, we have not identified instances where we have mine wastewater treatment

plant construction out for bids etc. If we receive further information from our regions regarding these questions, we will let you know.

1) Is there a proposal for a mine wastewater treatment plant near or on Cement Creek near Silverton that the EPA is considering building/might build or fund construction? I understand that at NPL sites, the EPA/federal government contributes 90 percent of the funds for construction and operating costs for 10 years before the wastewater treatment plant is turned over to local governments. There is a good example of this process near Denver at the Argo Tunnel Wastewater Treatment Plant in Idaho Springs, which is now state operated. Another mine wastewater treatment plant is planned not far from where the 1859 gold rush began. These mine wastewater treatment plants, based on the history of the Argo Tunnel plant aren't hastily built. There is a long process, often with local community opposition before construction even begins. Speaking with folks down in Silverton, there has been a proposal/discussion to build a wastewater treatment plant, possibly with EPA funding, near or on Cement Creek near Silverton for some years.

Within days of the Aug. 5 event, EPA staff initiated the process to gather bids for a temporary wastewater treatment plant as an option to address the ongoing flow from the Gold King Mine. We have received 6 bids and are currently considering them, as well as analyzing the effectiveness of such a plant in improving water quality.

2) Are there other places near or at big mines/mining districts where this type of discussion, to build a mine wastewater treatment plant, is currently under way?

Yes, water treatment facilities have been built at a number of hardrock mining sites on the NPL. Here are some examples that should give you a sense of the different types of facilities that exist.

Some examples of the response actions that address mine waste influenced waters at hardrock mining sites include the Central City/Clear Creek Mine site in Colorado where surface water was diverted and the acid mine drainage is being treated through an active treatment system which uses lime to raise the pH and the resulting metals sludge is being properly disposed. Part of the drainage at the Central City site is also being treated through a bioreactor, or passive treatment process.

At the Iron Mountain site in California, surface water is also being diverted and the acidic waters are also being treated through a chemical neutralization process. The sludge generated from the treatment process is being disposed in a repository.

Sites such as the Gilt Edge Mine in South Dakota and Kennecott site in Utah are using passive bioremediation technologies to treat mine waste influenced waters at those sites.

3) Are there other places near or at big mines/mining districts where the EPA has considered building a mine wastewater treatment plant but has tabled that discussion, planning because of costs, local opposition or other reasons?

Given the nature of the question, we cannot respond within a same-day timeframe. Please let us know whether you are still interested in receiving this information at a later date?

4) Are there mine wastewater treatment plants that the EPA is involved with that are currently out for bid or are under construction?

Given the nature of the question, we cannot respond within a same-day timeframe. Please let us know whether you are still interested in receiving this information at a later date?

Randy Deitz

Attorney Advisor

Office of Solid Waste and Emergency Response

(202) 566-0197

**From:** StClair, Christie

**Sent:** Tuesday, September 29, 2015 3:41 PM

**To:** Deitz, Randy; Stalcup, Dana

**Cc:** Allen, Laura; Harrison, Melissa; Cohen, Nancy

**Subject:** RE: URGENT - AP Inquiry on wastewater treatment plants

Hi Randy and Dana,

Reporter just pinged me on this. Have you made any progress?

Thanks,

Christie



**Christie St. Clair**

Office of Public Affairs

Environmental Protection Agency

Washington, DC

o: 202-564-2880

m: 202-768-5780

**From:** StClair, Christie

**Sent:** Friday, September 18, 2015 5:39 PM

**To:** Deitz, Randy; Stalcup, Dana

**Cc:** Allen, Laura; Harrison, Melissa; Cohen, Nancy

**Subject:** Re: URGENT - AP Inquiry on wastewater treatment plants

Randy and Dana,

The reporter was very thankful for this info. He says he'd still like to get info on #3 and #4, even if it's next week.

Thank you so much for your quick turnaround on this.

Hope you have a great weekend,

Christie

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**From:** Deitz, Randy  
**Sent:** Friday, September 18, 2015 4:45 PM  
**To:** StClair, Christie; Stalcup, Dana  
**Cc:** Allen, Laura; Harrison, Melissa; Cohen, Nancy  
**Subject:** RE: URGENT - AP Inquiry on wastewater treatment plants

Here is the AP response

1) Is there a proposal for a mine wastewater treatment plant near or on Cement Creek near Silverton that the EPA is considering building/might build or fund construction? I understand that at NPL sites, the EPA/federal government contributes 90 percent of the funds for construction and operating costs for 10 years before the wastewater treatment plant is turned over to local governments. There is a good example of this process near Denver at the Argo Tunnel Wastewater Treatment Plant in Idaho Springs, which is now state operated. Another mine wastewater treatment plant is planned not far from where the 1859 gold rush began. These mine wastewater treatment plants, based on the history of the Argo Tunnel plant aren't hastily built. There is a long process, often with local community opposition before construction even begins. Speaking with folks down in Silverton, there has been a proposal/discussion to build a wastewater treatment plant, possibly with EPA funding, near or on Cement Creek near Silverton for some years.

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Sites such as the Gilt Edge Mine in South Dakota and Kennecott site in Utah are using passive bioremediation technologies to treat mine waste influenced waters at those sites.

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4) Are there mine wastewater treatment plants that the EPA is involved with that are currently out for bid or are under construction?

Given the nature of the question, we cannot respond within a same-day timeframe. Please let us know whether you are still interested in receiving this information at a later date?

Randy Deitz

Attorney Advisor

Office of Solid Waste and Emergency Response

(202) 566-0197

**From:** StClair, Christie

**Sent:** Friday, September 18, 2015 1:16 PM

**To:** Stalcup, Dana; Deitz, Randy

**Cc:** Allen, Laura; Harrison, Melissa

**Subject:** URGENT - AP Inquiry on wastewater treatment plants

Dana and Randy,

The AP reporter has come back with some more specific questions about wastewater treatment plants at locations where the EPA is engaged.

Please let me know what we can provide him on his questions, below.

Additionally, can we talk to him about:

1. Can we give him info on the types of treatment systems/plants appropriate to mine sites? I know treatment systems/plants run the gamut from small to large.
2. What is possible under the Removal program vs under the NPL Remedial program?

eg - Under the removal program, there are legal post-removal site-control limitations. We can only run wastewater treatment plants for one year, at which time another entity (eg, the state, private company or organization) would have to take it over. Under the NPL remedial program, we can run a treatment plant for the first 10 years and then the state takes it over for long term operation and maintenance.

He's looking for info ASAP - this afternoon.

Thanks,

Christie

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**From:** Banda, Peter <[pbanda@ap.org](mailto:pbanda@ap.org)>  
**Sent:** Friday, September 18, 2015 12:49 PM  
**To:** StClair, Christie; Brown, Matthew  
**Cc:** Harrison, Melissa; Grantham, Nancy; Allen, Laura  
**Subject:** RE: wastewater treatment plants

Christie,

Thank you for your response and your referral to another agency to answer questions regarding wastewater treatment plants to clean up mine wastewater that EPA might be involved in. Before I report on the AP wire that EPA does not track how many mine districts/large mines might benefit from a wastewater treatment plant, let me make sure we're on the same page. I may have oversimplified my earlier inquiry.

The work that the EPA has been doing near Silverton

1) Is there a proposal for a mine wastewater treatment plant near or on Cement Creek near Silverton that the EPA is considering building/might build or fund construction? I understand that at NPL sites, the EPA/federal government contributes 90 percent of the funds for construction and operating costs for 10 years before the wastewater treatment plant is turned over to local governments. There is a good example of this process near Denver at the Argo Tunnel Wastewater Treatment Plant in Idaho Springs, which is now state operated. Another mine wastewater treatment plant is planned not far from where the 1859 gold rush began. These mine wastewater treatment plants, based on the history of the Argo Tunnel plant aren't hastily built. There is a long process, often with local community opposition before construction even begins. Speaking with folks down in Silverton, there has been a proposal/discussion to build a wastewater treatment plant, possibly with EPA funding, near or on Cement Creek near Silverton for some years.

2) Are there other places near or at big mines/mining districts where this type of discussion, to build a mine wastewater treatment plant, is currently under way?

3) Are there other places near or at big mines/mining districts where the EPA has considered building a mine wastewater treatment plant but has tabled that discussion, planning because of costs, local opposition or other reasons?

4) Are there mine wastewater treatment plants that the EPA is involved with that are currently out for bid or are under construction?

Thank you so much for your help.

Peter Solomon Banda

The Associated Press, Denver

Peter Solomon Banda

The Associated Press, Denver

**From:** StClair, Christie [<mailto:StClair.Christie@epa.gov>]  
**Sent:** Thursday, September 17, 2015 7:45 AM  
**To:** Banda, Peter  
**Cc:** Harrison, Melissa; Grantham, Nancy; Allen, Laura  
**Subject:** wastewater treatment plants

Hi Peter,

Melissa Harrison asked me to look into your question about how many mining districts/big mines could benefit from a wastewater treatment plant like the one being considered for north of Silverton.

This is not something we track. EPA's principal involvement is at NPL sites (133 of which are mine-related). This is a very, very, small fraction of the hundreds of thousands of inactive and abandoned mines sites in the U.S. Perhaps the United States Geological Service (USGS) has some data on how abandoned and inactive mining sites impact U.S. water.

Thanks, and please let me know if we can help with anything else.

Best,

Christie

Christie St. Clair

US EPA Office of Public Affairs

Washington, D.C.

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